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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,297	05/25/2001	Jean-Luc Pastre	209019US2	1219
22850	7590	09/22/2004	EXAMINER YE, LIN	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			ART UNIT 2615	PAPER NUMBER

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/864,297

Applicant(s)

PASTRE, JEAN-LUC

Examiner

Lin Ye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2001.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) 5-7 and 11-14 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-4 and 8-10 is/are rejected.  
7) ☒ Claim(s) 5-7 and 11-14 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3, 5.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 5-7 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 5-7 are referred back to **another multiple dependent claim 3**. See MPEP § 608.01(n).

**Accordingly, the claims 5-7 not been further treated on the merits.**

2. Claims 11-14 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 11-14 are referred back to another multiple dependent claim 10. See MPEP § 608.01(n).

**Accordingly, the claims 11-14 not been further treated on the merits.**

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. The term "**substantially**" in **claim 4** is a relative term which renders the claim indefinite.

The term "substantially" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It should be noted the "substantially equal" can considered as "great than or equal" in the claim 4. This could conflict to "smaller than or equal" in the claim 3.

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Appropriate correction is required.

For examination purpose, this claim will be interpreted as they are best understood.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4 and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeda et al. U.S. Patent 6,204,881.

Referring to claim 1, the Ikeda reference discloses in Figures, 1-2, 5 and 32-33, a device (an image data processing apparatus) to analyze or reconstruct one or more signals  $I_j$  (e.g., obtain combined image data from a plurality of image signals, see Col.1, lines 20-25) coming from one or more light sources (image lights from difference objects of the scene captured by image sensing devices), comprising at least: means to separate the signals  $I_j$  (image signals form the one scene) into at least two signals  $I_{j1}$  and  $I_{j2}$ , at least two channels  $V_1$ ,  $V_2$  respectively possessing a gain  $G_1$ ,  $G_2$  and a dynamic range  $D_1$ ,  $D_2$ , (e.g., two image devices 401a and 401b sensing the scene with different exposure amounts, so respectively possessing different gain and dynamic rang, see Col. 26, lines 27-34 and lines 48-65) said channels having at least one sensor and being adapted to obtain, at output, a signal  $I'_{j1}$ ,  $I'_{j2}$  (i.e., in Figure 2A , 2B and 5) with amplitudes  $A_{j1(t)}$ ,  $A_{j2(t)}$ , (intensity or luminance levels) a device

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for the processing of the signals  $I'_{j1}$ ,  $I'_{j2}$  adapted to memorizing (See, Col. 27, lines 3-9) the amplitude  $A_{j1(t)}$ ,  $A_{j2(t)}$  of at least one of the two signals  $I'_{j1}$ ,  $I'_{j2}$  when  $I'_{j1}$  and/or  $I'_{j2}$  is below a threshold value  $S_{max}$  (saturation level, see Col. 27, lines 35-40) and to determining the amplitude  $A_{j(t)}$  (for combined image signals, the intensity levels equal to  $IN(1) \times N1 + IN(2) \times N2$ , see Col. 28, lines 20-29) of the corresponding signal  $I'_j$ .

Referring to claim 2, the Ikeda reference discloses wherein the signal-processing device (computer 6) works as follows: for a signal  $I'_j$  corresponding to a given spatial position  $j$  (pixel position, i.e. see Figure 6) if the amplitude  $A_{j1(t)}$  is smaller than or equal to a threshold value  $S_{max}$  (saturation level) then the processing device stores the pair of values  $(A_{j1(t)}, t)$ , if the amplitude  $A_{j1(t)}$  is greater than the threshold value  $S_{max}$ , then the processing device stores the pair of values  $(A_{j2(t)}, t)$  (e.g., any saturated portions must be deleted) and from the stored values  $(A_{j1(t)}, t)$ ,  $(A_{j2(t)}, t)$  (combined image intensity values) the device determines the corresponding values of amplitude  $A_{j(t)}$  in order to obtain the signal  $I'_j$  (See Col. 27, lines 52-58).

Referring to claims 3-4 (depend one of the claim 1 or claim 2), the Ikeda reference discloses wherein said means of separating the signal  $I_j$  have an attenuation coefficient  $K$  (e.g., the luminance level adjusting factor  $K$ , see Col. 22, lines 5-17) determined so that  $K$  is smaller than or equal to the dynamic range (i.e., the  $K$  is smaller than or equal to the dynamic range 4 a shown in Figure 26, and see Col. 22, lines 34-65) of at least one of said channels  $V_1$ ,  $V_2$  (image devices 401a, 401b).

Referring to claims 8-9, the Ikeda reference discloses all subject matter as discussed in respected claims 1-2.

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Referring to claim 10 (depend one of the claims 8 and 9), the Ikeda reference discloses wherein the threshold value  $S_{max}$  corresponds to the value of saturation of the sensor with the smallest dynamic range (i.e, image data I has dynamic range from 0-330, image data II has dynamic rang from 0-1000; then the value of saturation of sensor is choice from the image data I, see Col. 27, lines 35-51 and Col. 28, lines 12-33).

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - a. Cornuejols U.S 5,638,119 discloses a camera with two CCD sensors whose output signals are combined to obtain a wider dynamic range of amplitude.
  - b. Serizawa et al. U.S. 6, 593,970 discloses a an imagine circuit generates a fist video signal with a first exposure interval and a second video signal with a second exposure interval at the same time.
  - c. Takahashi U.S. 6,480,226 discloses an image pickup apparatus which can produce an image provided with exposure suitable for both a backlighted object and its background.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Lin Ye** whose telephone number is **(703) 305-3250**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on (703) 308-9644.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

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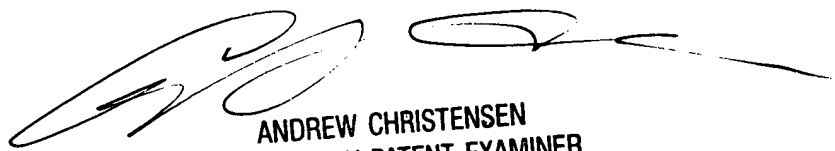
Washington, DC. 20231

Or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive,  
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the Technology Center 2600 Customer Service Office  
whose telephone number is (703) 306-0377.



ANDREW CHRISTENSEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

Lin Ye  
September 16, 2004